

CLAIMS

What is claimed is:

- 1 1. A method for processing XML requests on a router, the method comprising the
2 machine-implemented steps of:
3 receiving, at a router from a client, an XML request to perform an operation on
4 management data maintained in a database by the router;
5 parsing the XML request to identify one or more XML elements contained in the
6 XML request;
7 generating one or more data requests based upon the one or more XML elements
8 contained in the XML request; and
9 processing the one or more data requests against the management data maintained in
10 the database by the router.
- 1 2. The method as recited in Claim 1, wherein the step of parsing the XML request to
2 identify one or more XML elements contained in the XML request includes
3 identifying one or more XML tags contained in the XML request and the step of
4 generating the one or more data requests based upon the one or more XML elements
5 contained in the XML request includes generating the one or more data requests based
6 upon the one or more XML tags contained in the XML request.
- 1 3. The method as recited in Claim 1, further comprising the machine-implemented step
2 of generating an XML response based upon processing the one or more data requests

3 against the management data maintained in the database by the router.

1 4. A method for processing XML requests on a router, the method comprising the
2 machine-implemented steps of:
3 receiving, at a router from a client, an XML request to perform an operation on
4 management data maintained in a database by the router;
5 parsing the XML request to identify one or more XML tags contained in the XML
6 request;
7 identifying one or more management data items in the management data that are
8 associated with the one or more XML tags;
9 generating one or more operations to be performed on the one or more management
10 data items;
11 processing the one or more operations against the one or more management data items
12 maintained in the database; and
13 generating and XML response and sending the XML response to the client.

1 5. A method for generating schema data used by a router to process XML requests, the
2 method comprising the machine-implemented steps of:
3 receiving schema definition data that defines both a hierarchical data model used by
4 the router and an XML interface used by client to generate XML requests for
5 the router;
6 processing the schema definition data to generate processed schema definition data;
7 and

8 storing the processed schema definition data on the router.

1 6. A machine-readable medium for processing XML requests on a router, the machine-
2 readable medium carrying instructions which, when executed by one or more
3 processors, cause the one or more processors to perform the steps of:
4 receiving, at a router from a client, an XML request to perform an operation on
5 management data maintained in a database by the router;
6 parsing the XML request to identify one or more XML elements contained in the
7 XML request;
8 generating one or more data requests based upon the one or more XML elements
9 contained in the XML request; and
10 processing the one or more data requests against the management data maintained in
11 the database by the router.

1 7. The machine-readable medium as recited in Claim 6, wherein the step of parsing the
2 XML request to identify one or more XML elements contained in the XML request
3 includes identifying one or more XML tags contained in the XML request and the
4 step of generating the one or more data requests based upon the one or more XML
5 elements contained in the XML request includes generating the one or more data
6 requests based upon the one or more XML tags contained in the XML request.

1 8. The machine-readable medium as recited in Claim 6, further comprising one or more
2 additional instructions which, when executed by the one or more processors, cause the

3 one or more processors to perform the step of generating an XML response based
4 upon processing the one or more data requests against the management data
5 maintained in the database by the router.

1 9. A machine readable medium for processing XML requests on a router, the machine-
2 readable medium carrying instructions which, when executed by one or more
3 processors, cause the one or more processors to perform the steps of:
4 receiving, at a router from a client, an XML request to perform an operation on
5 management data maintained in a database by the router;
6 parsing the XML request to identify one or more XML tags contained in the XML
7 request;
8 identifying one or more management data items in the management data that are
9 associated with the one or more XML tags;
10 generating one or more operations to be performed on the one or more management
11 data items;
12 processing the one or more operations against the one or more management data items
13 maintained in the database; and
14 generating and XML response and sending the XML response to the client.

1 10. A machine-readable medium for generating schema data used by a router to process
2 XML requests, the machine-readable medium carrying instructions which, when
3 executed by one or more processors, cause the one or more processors to perform the
4 steps of:

5 receiving schema definition data that defines both a hierarchical data model used by
6 the router and an XML interface used by client to generate XML requests for
7 the router;
8 processing the schema definition data to generate processed schema definition data;
9 and
10 storing the processed schema definition data on the router.

1 11. An apparatus for processing XML requests on a router, the apparatus comprising a
2 memory storing instructions which, when executed by one or more processors, cause
3 the one or more processors to perform the steps of:
4 receiving, at a router from a client, an XML request to perform an operation on
5 management data maintained in a database by the router;
6 parsing the XML request to identify one or more XML elements contained in the
7 XML request;
8 generating one or more data requests based upon the one or more XML elements
9 contained in the XML request; and
10 processing the one or more data requests against the management data maintained in
11 the database by the router.

1 12. The apparatus as recited in Claim 11, wherein the step of parsing the XML request to
2 identify one or more XML elements contained in the XML request includes
3 identifying one or more XML tags contained in the XML request and the step of
4 generating the one or more data requests based upon the one or more XML elements

5 contained in the XML request includes generating the one or more data requests based
6 upon the one or more XML tags contained in the XML request.

1 13. The apparatus as recited in Claim 11, wherein the memory further comprises one or
2 more additional instructions which, when executed by the one or more processors,
3 cause the one or more processors to perform the step of generating an XML response
4 based upon processing the one or more data requests against the management data
5 maintained in the database by the router.

1 14. An apparatus for processing XML requests on a router, the apparatus comprising a
2 memory carrying instructions which, when executed by one or more processors, cause
3 the one or more processors to perform the steps of:
4 receiving, at a router from a client, an XML request to perform an operation on
5 management data maintained in a database by the router;
6 parsing the XML request to identify one or more XML tags contained in the XML
7 request;
8 identifying one or more management data items in the management data that are
9 associated with the one or more XML tags;
10 generating one or more operations to be performed on the one or more management
11 data items;
12 processing the one or more operations against the one or more management data items
13 maintained in the database; and
14 generating and XML response and sending the XML response to the client.

1 15. An apparatus for generating schema data used by a router to process XML requests,
2 the apparatus comprising a memory storing instructions which, when executed by one
3 or more processors, cause the one or more processors to perform the steps of:
4 receiving schema definition data that defines both a hierarchical data model used by
5 the router and an XML interface used by client to generate XML requests for
6 the router;
7 processing the schema definition data to generate processed schema definition data;
8 and
9 storing the processed schema definition data on the router.

1 16. An apparatus for processing XML requests on a router, the apparatus comprising:
2 means for receiving, at a router from a client, an XML request to perform an
3 operation on management data maintained in a database by the router;
4 means for parsing the XML request to identify one or more XML elements contained
5 in the XML request;
6 means for generating one or more data requests based upon the one or more XML
7 elements contained in the XML request; and
8 means for processing the one or more data requests against the management data
9 maintained in the database by the router.

1 17. The apparatus as recited in Claim 16, further comprising means for identifying one or
2 more XML tags contained in the XML request and means for generating the one or

3 more data requests based upon the one or more XML tags contained in the XML
4 request.

1 18. The apparatus as recited in Claim 16, further comprising means for generating an
2 XML response based upon processing the one or more data requests against the
3 management data maintained in the database by the router.

1 19. An apparatus for processing XML requests on a router, the apparatus comprising:
2 means for receiving, at a router from a client, an XML request to perform an
3 operation on management data maintained in a database by the router;
4 means for parsing the XML request to identify one or more XML tags contained in
5 the XML request;
6 means for identifying one or more management data items in the management data
7 that are associated with the one or more XML tags;
8 means for generating one or more operations to be performed on the one or more
9 management data items;
10 means for processing the one or more operations against the one or more management
11 data items maintained in the database; and
12 means for generating and XML response and sending the XML response to the client.

1 20. An apparatus for generating schema data used by a router to process XML requests,
2 the apparatus comprising:
3 means for receiving schema definition data that defines both a hierarchical data model

4 used by the router and an XML interface used by client to generate XML
5 requests for the router;
6 means for processing the schema definition data to generate processed schema
7 definition data; and
8 means for storing the processed schema definition data on the router.